CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-157
NPDES PERMIT NO. CA0038121

WASTE DISCHARGE REQUIREMENTS FOR:

TOWN OF YOUNTVILLE, AND
DEPARTMENT OF VETERANS AFFAIRS,
VETERANS HOME OF CALIFORNIA,
NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The Town of Yountville, on behalf of itself and the Department of Veterans Affairs, Veterans Home of California (Veterans Home), hereinafter called the discharger, submitted a Report of Waste Discharge dated June 21, 1993 for reissuance of waste discharge requirements and a permit to discharge wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES).

2. This discharge is presently governed by Waste Discharge Requirements in Order No. 88-169, adopted by the Board on December 21, 1988.

3. Discharges of reclaimed effluent to land are governed by Water Reclamation Requirements in Order No. 89-074, adopted by the Board on May 17, 1989, and amendments and/or revisions thereto.

4. The Town of Yountville and the Veterans Home own the Yountville/Veterans Home Joint Wastewater Treatment Facility, located at 7501 Solano Avenue, Yountville, which provides advanced secondary treatment for domestic wastewater from the Town of Yountville and the Veterans Home. The Town of Yountville is responsible for operating and maintaining the joint wastewater treatment facility. The discharger's service area has a present population of approximately 3,400. The treatment plant has an average dry weather flow design of 0.55 million gallons per day (mgd), and can treat up to 2.0 mgd during the wet weather flow period. The plant presently treats an average dry weather flow of 0.36 mgd. Amount of treated effluent discharged to the Napa River depends on the amount of effluent reclaimed and the availability of adequate dilution at the discharge point. A location map is included as Attachment A.

5. The U.S. Environmental Protection Agency (EPA) and the Board have classified this discharge as a minor discharge.

6. The treatment process consists of aerated grit chamber, comminutors, primary settling basin, primary trickling filter, intermediate settling basin, secondary trickling filter, aeration basin, final clarifier, pressure filtration, chlorination, dechlorination, and effluent holding pond. Excess wet weather flow can be temporarily stored in a 3.5 million gallon capacity wastewater storage pond. A treatment process schematic diagram is included as Attachment B.

7. During the wet weather period of October 1 through May 15, treated effluent may be discharged into the Napa River (Latitude 38 Deg. 24 Min. 30 Sec.; Longitude 122 Deg. 20 Min. 25 Sec.), a water of the State and the United States, provided that the discharge receives a minimum 10:1 river to wastewater dilution. During the dry weather season, discharge to the Napa River is prohibited and the treated effluent is disposed of through irrigation of a hayfield on the Veterans Home property and the Chimney Rock Golf Course, which is governed by a separate set of water reclamation

requirements (see Finding 3).

8. Sludge from the various process units is returned to the primary settling basin, and settled sludge is then pumped into two digestors operated in series for anaerobic digestion. Digested sludge is dried in on-site sludge drying lagoons, and ultimately disposed of at an authorized landfill.

9. The Board amended its Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region on September 16, 1992, and the State Water Resources Control Board (State Board) approved it on April 27, 1993.

10. The State Board adopted the California Enclosed Bay and Estuaries Plan (EBEP) on April 11, 1991. On November 19, 1992 the State Board adopted amendments to the Plan. This plan identifies water quality objectives for all enclosed bays and estuaries, and a strategy for implementation of the objectives. This plan requires appropriate water quality objectives to be implemented in discharger's Waste Discharge Requirement permit.

11. This Order implements the plans, policies and provisions of the Board's Basin Plan, and the State Board's California Enclosed Bays and Estuaries Plan.

12. The Basin Plan contains water quality objectives and beneficial uses for the Napa River. The beneficial uses of Napa River are as follows:

- Navigation
- Water Contact Recreation
- Non-contact Water Recreation
- Wildlife Habitat
- Preservation of Rare and Endangered Species
- Fish Migration
- Fish Spawning
- Cold Water Habitat
- Warm Water Habitat
- Agricultural Supply
- Municipal and Domestic Supply

13. The Basin Plan prohibits the discharge of wastewater which has characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1, or into any non-tidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof. Discharge of treated wastewater from the discharger's treatment facility to the Napa River is contrary to this prohibition.

14. The Basin Plan states that exceptions to the above prohibition will be considered where the discharge is approved a s part of a reclamation project, or it can be demonstrated that net environmental benefits will be derived as a result of the discharge.

15. The discharger has an active water reclamation program for disposal of treated effluent during the dry weather season without discharge to the Napa River. The Board finds that the water reclamation program implemented by the discharger complies with the exception provision of the Basin Plan, and hereby grants an exception to the discharge prohibition for the wet weather

discharges to the Napa River.

16. The revised Basin Plan allows for distinction between effluent limitations that are met by current performance, and effluent limitations not currently attained. Immediate compliance is required for effluent limits that are met by current performance. The Board will consider discharger's proposal for longer compliance periods for compliance with limitations not currently attained. The primary goal in setting compliance schedules is to promote the completion of source control and waste minimization measures, including water reclamation.

17. The revised Basin Plan contains new effluent limitations for selected toxic pollutants such as heavy metals, including more stringent limits for discharges to shallow waters (receiving waters that do not provide a minimum initial dilution of at least 10:1). The shallow water limits are based on a dilution ratio of zero. For cases where compliance with the new limits, located in Table IV-1A of the Basin Plan, is not immediately feasible, the Basin Plan includes criteria under which a discharger may apply for an exception to the assigned dilution ratio of zero. Exceptions are considered only where an aggressive source control program is in place, and compliance with water quality objectives is obtained in the receiving waters. Source control, including waste minimization, is a more desirable pollutant reduction technique than structural modification at the discharger's plant.

18. The Basin Plan classifies a deep water discharge as being discharged through an outfall with a diffuser designed to provide a minimum "initial dilution" of 10:1 in the receiving water. The discharger's outfall structure is not equipped with a diffuser designed to provide the required 10:1 "initial dilution", although a 10:1 river to wastewater "volumetric dilution" is received. In such case, the discharge is categorized as a shallow water discharge and the Basin Plan's shallow water limitations apply.

    The discharge will be categorized as a deep water discharge only when a minimum of 50:1 river to wastewater volumetric dilution is received in the Napa River. The Board considers that a 50:1 volumetric dilution provides added protection to the Napa River equivalent to that of a 10:1 initial dilution provided by a diffuser in the outfall structure, and therefore allow deep water limitations to apply.

19. A review of the discharger's past effluent monitoring data indicated that the discharger will be able to comply with the revised Basin Plan shallow water effluent limitations, with the exception of copper. Based on the available monitoring data, this Order implements the Basin Plan provisions as follows:

    a. Requires immediate compliance for effluent limitations that are met by current performance.

    b. Requires compliance with shallow water copper limit (Basin Plan Table IV-1A) by April 11, 1996, through the implementation of source control measures to the maximum extent practicable. Sets interim limit for copper to be in effect prior to April 11, 1996.

20. The Basin Plan specifies marine and fresh water effluent limitations which are to be applied to a discharge for selected toxic pollutants. Whether marine or fresh water limitations are applied depends upon the unique salinity characteristics of the receiving waters. The salinity in the vicinity

of the discharge is fresh water in character, therefore the fresh water limitations apply here.

21. Federal Regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency on November 19, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Available Technology Economically Available (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial storm water discharges.

22. The storm water flows from the wastewater treatment facility process areas are directed to wastewater treatment plant process units and treated along with the wastewater discharged to the treatment plant. These storm water flows constitute all industrial storm water at this facility and consequently this permit regulates all industrial storm water discharges at this facility.

23. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.

24. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.

25. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the discharge and have been provided an opportunity to submit their written views and recommendations.

26. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location or in a manner different from that described in the findings of this Order is prohibited.

2. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.

3. The average dry weather flow to the treatment plant shall not exceed 0.55 mgd. The average dry weather flow shall be determined over three consecutive dry weather months each year.

4. Discharges of water, materials, or wastes other than storm water, which are not otherwise

authorized by this NPDES permit, to a storm drain system or waters of the State are prohibited.

5. Storm water discharges shall not cause pollution, contamination, or nuisance.

6. Discharge of treated wastewater that does not receive a minimum of 10:1 river to wastewater dilution ratio is prohibited.

7. Discharge to the Napa River is prohibited during the period from May 16 through September 30 of each year. Discharge later than May 16 or prior to September 30 may be authorized by the Executive Officer, for a specified period not to exceed one month, based on written request from the Discharger demonstrating that adequate dilution is available at the discharge point and that water quality objectives in the receiving water would be complied with.

B. EFFLUENT LIMITATIONS

The term "effluent" in the following limitations means the fully treated wastewater effluent from the discharger's wastewater treatment facility, as discharged to the Napa River.

1. Effluent discharged to the Napa River shall meet one of the following sets of effluent limitations (as specified in 1.a and 1.b), based upon the river to wastewater dilution received:

1.a. For a river to wastewater dilution of at least 10:1 but less than 50:1, the discharge shall not exceed the following limits:

Constituent	Unit	Monthly Avg.	Weekly Avg.	Daily Avg.	Instantaneous Max.
a. BOD_5 (biochemical oxygen demand)	mg/l	10		20	
b. TSS (total suspended solids)	mg/l	15		30	
c. oil & grease	mg/l	5		10	
d. settleable matter	ml/l-hr	0.1			0.2
e. total chlorine residual [1]	mg/l				0.0
f. turbidity	NTU			10 (for at least 95% of the time during a 24-hr period)	
g. total coliform	MPN/100ml	At some point in the treatment process prior to discharge, the moving median value for the Most Probable Number (MPN) of total coliform bacteria in any seven (7) consecutive samples shall not exceed 2.2 MPN/100ml; and, any single sample shall not exceed 240 MPN/100ml when verified by a repeat sample taken within 48 hours.			

Footnote: (1) Requirement defined as below the limit of detection in standard test methods.

1.b. For a river to wastewater dilution of at least 50:1, the discharge shall not exceed the following limits:

Constituent	Unit	Monthly Avg.	Weekly Avg.	Daily Avg.	Instantaneous Max.
a. BOD_5 (biochemical oxygen demand)	mg/l	30	45	60	
b. TSS (total suspended solids)	mg/l	30	45	60	
c. oil & grease	mg/l	10		20	
d. settleable matter	ml/l-hr	0.1			0.2
e. total chlorine residual (1)	mg/l				0.0
f. total coliform	MPN/100ml	At some point in the treatment process prior to discharge, the moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five (5) consecutive samples shall not exceed 23 MPN/100ml; and, any single sample shall not exceed 240 MPN/100ml when verified by a repeat sample taken within 48 hours.			

Footnote: (1) Requirement defined as below the limit of detection in standard test methods.

2. pH: The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. 85 Percent Removal, BOD and TSS:

The arithmetic mean of the biochemical oxygen demand (5-day, 20° C) and total suspended solids values, by weight, for effluent samples collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period.

4. Toxic Substances Effluent Limitations:

Effluent discharged to the Napa River shall meet one of the following sets of effluent limitations (as specified in 4.a and 4.b), based upon the river to wastewater dilution received:

4.a. For a river to wastewater dilution of at least 10:1 but less than 50:1, the discharge shall not exceed the following limits[a]:

Constituent	Unit	Monthly Avg.[b]	Daily Avg.[b]	Interim Daily Avg.
a. Arsenic	ug/l	5.0	190	
b. Cadmium	ug/l		1.1	

Constituent (...continued)	Unit	Monthly Avg.[b]	Daily Avg.[b]	Interim Daily Avg.
c. Chromium[c]	ug/l		11	
d. Copper	ug/l		11.8	78[f]
e. Lead	ug/l		3.2	
f. Mercury	ug/l	0.012	2.4	
g. Nickel	ug/l		160	
h. Cyanide[d]	ug/l		5.2	
i. Silver	ug/l		4.1	
j. Zinc	ug/l		110	
k. Phenol	ug/l	300		
l. PAHs[e]	ug/l	0.0028		

4.b For a river to wastewater dilution of at least 50:1, the discharge shall not exceed the following limits[a]:

Constituent	Unit	Monthly Avg.[b]	Daily Avg.[b]
a. Arsenic	ug/l	50	1900
b. Cadmium	ug/l		10.7
c. Chromium[c]	ug/l		110
d. Copper	ug/l		78
e. Lead	ug/l		23
f. Mercury	ug/l	0.084	24
g. Nickel	ug/l		1570
h. Cyanide[d]	ug/l		52
i. Silver	ug/l		41
j. Zinc	ug/l		1055
k. Phenol	ug/l	3000	
l. PAHs[e]	ug/l	0.028	

Footnotes for 4.a and 4.b:

(a) All analyses shall be performed using current U.S. EPA methods, as specified in the "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", SW-846, Third Edition. Detection limits, practical quantitative levels, and limits of quantitative will be taken into account in determining compliance with effluent limitations.

(b) Limits apply to the average concentration of all samples collected during the averaging period (Daily - 24-hour period; Monthly - calendar month).

(c) The discharger may meet this limit as total chromium.

(d) The discharger may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.

(e) See California Enclosed Bays and Estuaries Plan, April 1991, Definition of Terms.

(f) This interim limit is based on Table IV-1B of the 1992 Basin Plan, deep water limits, and will be in effect until April 11, 1996. After this date, the limit for copper shall be 11.8 ug/l as daily average, as shown in the table.

5. Acute Toxicity:

Representative samples of the effluent shall meet the following limits for acute toxicity: (Provision E.4 of this Order applies to the bioassay.)

The survival of organisms in undiluted effluent shall be a 3-sample median value of not less than 90 percent survival, and a single-sample maximum of not less than 70 percent survival.

The 3-sample median effluent limitation is defined as follows:

3-sample median: If one of the past two or fewer samples shows less than 90 percent survival, the survival of less than 90 percent on the next sample represents a violation of the effluent limitation.

C. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;
   b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State at any place within one foot of the water surface:

   a. Dissolved Oxygen — 7.0 mg/l, minimum

   (The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.)

   b. Dissolved Sulfide — 0.1 mg/l, maximum

   c. pH — Variation from normal ambient pH by more than 0.5 pH units.

   d. Un-ionized Ammonia — 0.025 mg/l as N, annual median
   0.16 mg/l as N, maximum

e.	Nutrients	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

3. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. SLUDGE MANAGEMENT PRACTICES

1. Sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.

2. The discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of adversely affecting human health or the environment.

3. The sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the treatment and storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.

4. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258. In the annual self-monitoring report, the discharger shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

5. If the discharger desires to dispose of sludge by a different method, a request for permit modification must be submitted 180 days before start-up of the alternative disposal practice.

E. PROVISIONS

1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 88-169. Order No. 88-169 is hereby rescinded.

2. Where concentration limitations in mg/l or µg/l are contained in this Permit, the following Mass Emission Limitations shall also apply:

   Mass Emission Limit in kg/day = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies) x 3.78 (conversion factor).

3. The discharger shall comply with all sections of this Order immediately upon adoption with the exception of the shallow water discharge effluent limit for copper, for which, the interim limit shall be complied with prior to April 11, 1996.

4. Compliance with Acute Toxicity Effluent Limitation:

   a. Compliance with Effluent Limitation B.5. (Acute Toxicity) of this Order shall be evaluated by measuring survival of test fishes exposed to undiluted effluent for 96 hours in static renewal bioassay. Each fish species represents a single bioassay.

   b. Two fish species will be tested concurrently. These shall be the most sensitive species determined from a single screening (all tests must be completed within ten days of initiating the first test) of three species: three-spine stickleback, rainbow trout and fathead minnow. The Board may consider allowing compliance monitoring with only one (the most sensitive, if known) fish species, if the discharger can document that the acute toxicity limitation, specified above, has not been exceeded during the previous three years, or that acute toxicity has been observed in only one of the two fish species.

   c. All bioassay shall be performed according to protocols approved by the U.S. EPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.

5. The discharger may request an extended compliance time schedule for particular substances, based on the implementation of an aggressive source control and waste minimization program, as provided for in the Enclosed Bays and Estuaries Plan, Chapter III, Part M. Justification for longer compliance periods must include, at a minimum, all of the following:

   1) Results of a diligent effort to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream;
   2) Documentation of source control efforts currently underway or completed, including compliance with the General Source Control/Waste Minimization program described in the Basin Plan;
   3) A proposed schedule for additional source control measures or waste treatment; and
   4) A demonstration that the proposed schedule is as short as possible (in no event shall additional source control measures to reduce pollutant loadings be completed any later than April 11, 2001.

6. The discharger shall start immediately the planning and implementation of an aggressive source control program for copper to the extent practicable, and shall complete implementation of the source reduction plan no later than April 11, 1996.

7. The discharger shall review, and update as necessary, its Operations and Maintenance Manual annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.

8. Annually, the discharger shall review, and update as necessary, its Contingency Plan as

required by Board Resolution 74-10 (Attachment C). The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.

9. The discharger shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the discharger's service responsibilities.

10. The discharger shall comply with the Self-Monitoring Program (Attachment D) for this order, as adopted by the Board and as may be amended by the Executive Officer.

11. The discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements " dated August 1993 (Attachment E), or any amendments thereafter.

12. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

    To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order (see Standard Provisions, referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

13. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order are causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.

14. This Order expires on December 15, 1998. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days before this expiration date as application for reissuance of waste discharge requirements.

15. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator,

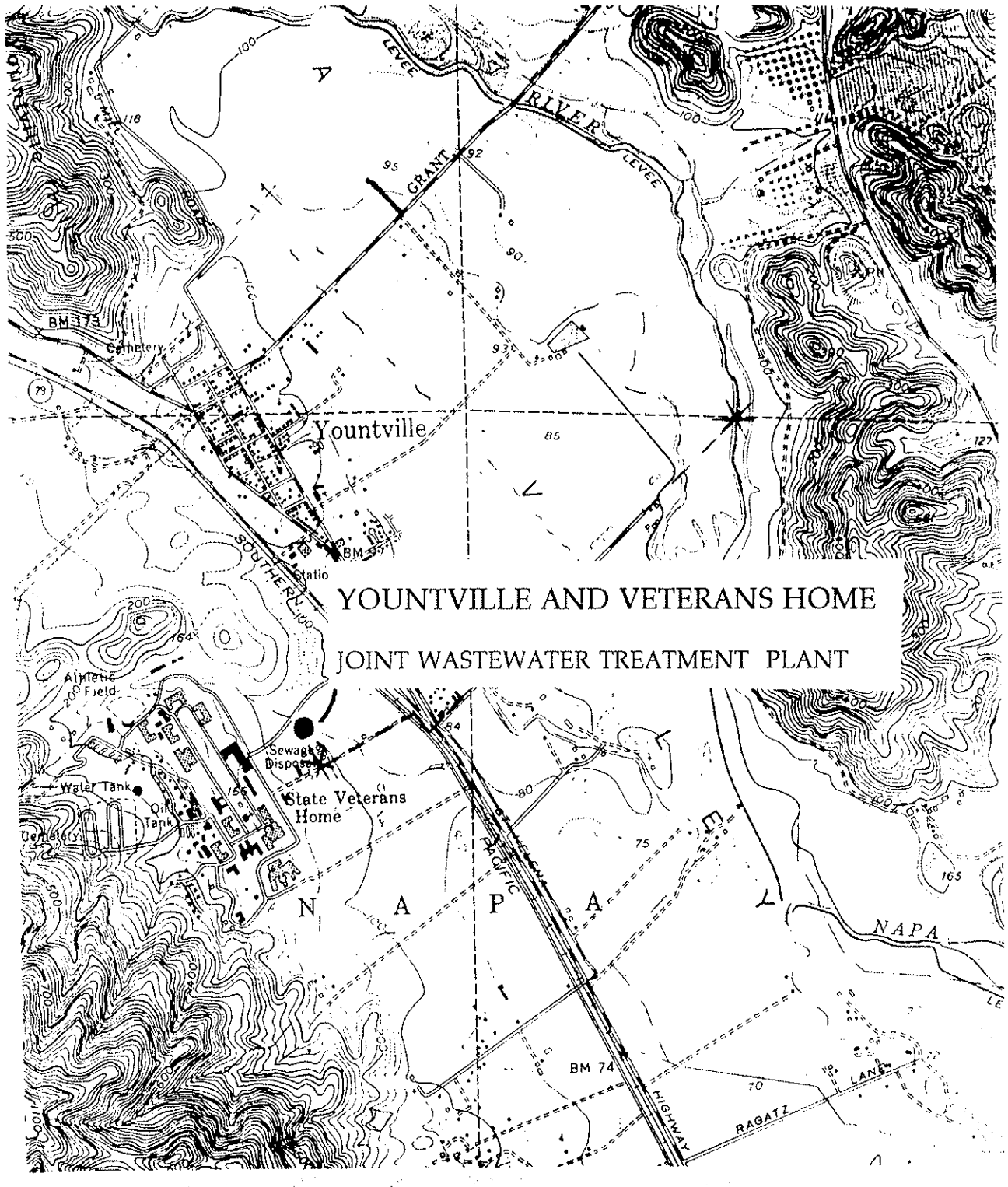
EPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on December 15, 1993.

STEVEN R. RITCHIE
Executive Officer

Attachments:

A. Location Map
B. Treatment Process Schematic Diagram
C. Contingency Plan - Resolution 74-10
D. Self-Monitoring Program
E. Standard Provisions and Reporting Requirements, August 1993

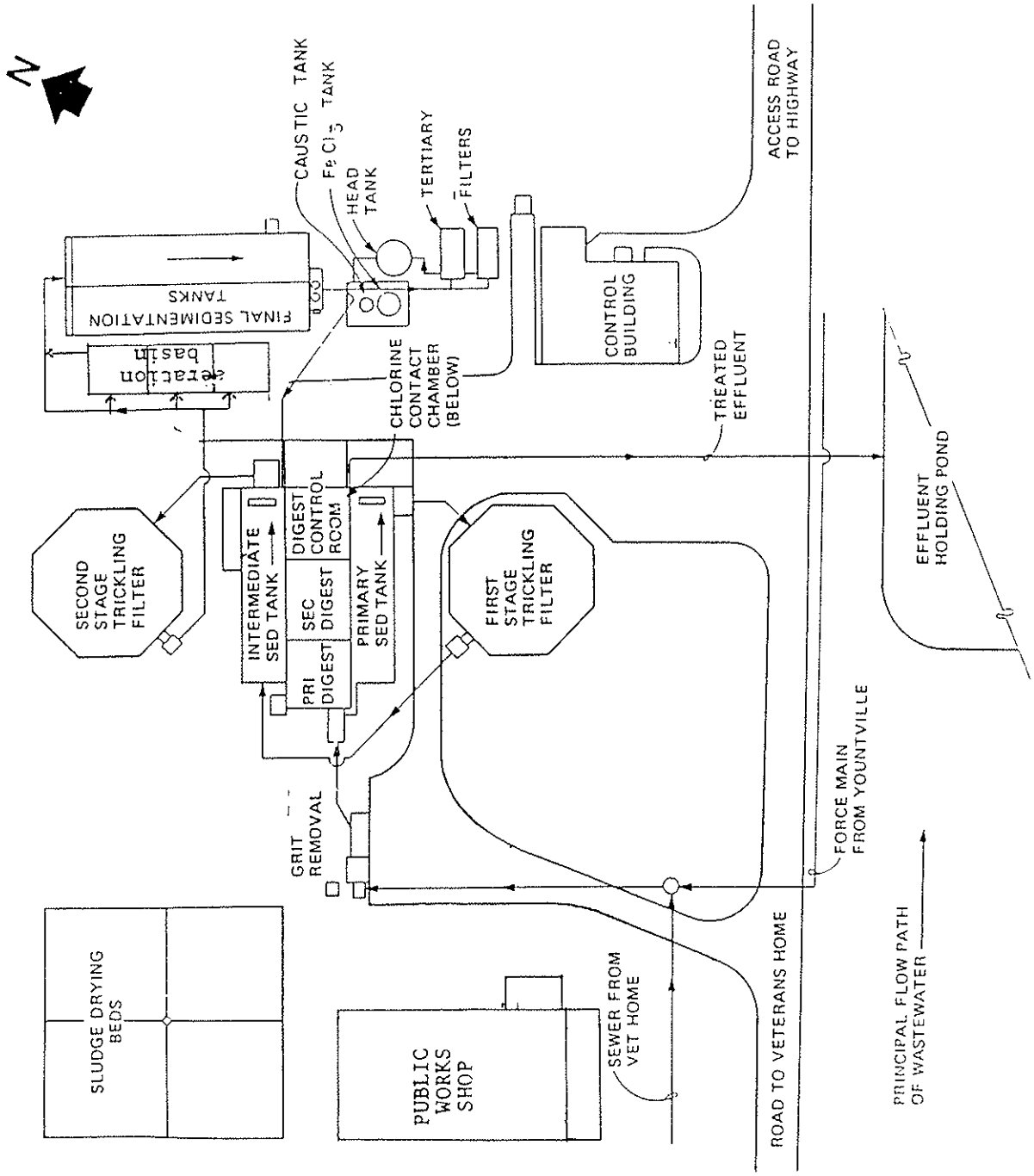


STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Attachment A:

Location Map
Yountville/Veterans Home
Joint WWTP, Napa County

DRAWN BY:	DATE:	DRWG NO.



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Attachment B:

Treatment Process Schematic Diagram
Yountville/Veterans Home

DRAWN BY:	DATE:	DRWG. NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FINAL

SELF-MONITORING PROGRAM

FOR

TOWN OF YOUNTVILLE AND

DEPARTMENT OF VETERANS AFFAIRS,

VETERANS HOME OF CALIFORNIA,

NAPA COUNTY

NPDES NO. CA0038121

ORDER NO. 93-157

CONSISTS OF

PART A (dated 12/86)

AND

PART B

PART B

TOWN OF YOUNTVILLE/VETERANS HOME JOINT WASTEWATER PLANT

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
A-1	At any point in the treatment facilities headwork at which all waste tributary to the system is present, preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-1	At any point in the effluent from the tertiary treatment facilities at which point all waste tributary to the effluent is present, prior to the point of discharge. (May be the same as E-1-D)
E-1-D	At any point in the effluent from the tertiary treatment facilities at which point adequate contact with the disinfectant is assured. The sample point for final chlorine residue shall be at a point downstream of the chlorination point.

C. RECEIVING WATERS

Station	Description
C-1	At a point in the Napa Rover, located near the point of discharge.

D. LAND OBSERVATIONS

Station	Description
L-1 thru L-"n"	Points located along the perimeter levee of each sludge drying lagoon, at equidistant intervals not to exceed 100 feet.
P-1 thru P-"n"	Points located at the corners and mid-points of the perimeter boundary of the waste treatment facilities site, at equidistant intervals not to exceed 500 feet.

(Note: A sketch showing the locations of these stations shall accompany each report.)

E. GROUNDWATER

Station	Description
G-1 thru G-3	Groundwater monitoring wells located above and below gradient

of the sludge drying lagoons, as shown on the attached map.

F. OVERFLOWS AND BYPASSES

Station	Description
OV-1 thru OV-"n"	At any points in the collection system including manholes, pump stations, or any other locations where overflows or bypasses occur.

(Note: Each occurrence of a bypass or overflow shall be reported to the Regional Board in accordance with the reporting requirements specified in Part A. Each annual report shall include a map and description of the location(s) of each known bypass or overflow occurred within the calendar year.)

II. SCHEDULE OF SAMPLING, ANALYSIS AND OBSERVATIONS

The schedule of sampling, analysis and observations shall be that given in Table 1.

III. MODIFICATION OF PART A (dated 12/86)

This monitoring program does not include the following sections of Part "A": E.3. and G.4.e.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 93-157.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

STEVEN R. RITCHIE
Executive Officer

Effective Date: December 15, 1993.

Attachment: Table 1
Map - locations of groundwater monitoring stations

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS [1][6]

Sampling Station:	A		E-1[2]			E-1-D [2]		L	P	C[2]	G[6]	ov
Type of Sample:	C-24	Co.	G	C-24	Co.	C-24	G	O	O	G	G	O
Flow Rate (mgd)		D			D							
BOD_5	W			W								
TSS	W			W								
Oil & Grease[4]				2M								
Settleable Matter (ml/l-hr)			D									
Chlorine Residual[3]							Co/2h					
Total Coliform, (MPN/100 ml)							3/W				Q	
Acute Fish Toxicity, % surv.						Q						
Turbidity				D								
pH, units			D									
DO, mg/l & % saturation			W									
Dissolved Sulfides (if DO<2)			W									
Arsenic				Q								
Cadmium				Q								
Chromium IV				Q								
Copper				Q								
Cyanide				Q								
Silver				Q								
Lead				Q								
Mercury				Q								
Nickel				Q								
Selenium				Q								
Zinc				Q								
Phenolic Compounds				Y								
PAHs				Y								
Nitrate Nitrogen											Q	
Total Organic Carbon											Q	
Applicable Std. Observations								W	W			E
River Flow (mgd)										D[7]		
Dilution Ratio (river:eff.)			D									

LEGEND FOR TABLE 1:

Types of Samples:	G	=	Grab Sample
	C-x	=	Composite sample - x hours
	Co.	=	Continuous Sampling
	O	=	Observation

Types of Stations:	A	=	treatment facility influent
	E	=	waste effluent
	C	=	receiving water
	L	=	treatment facilities perimeter
	P	=	pond levee
	G	=	groundwater monitoring well
	OV	=	overflow and bypass

Frequency of Sampling:

D	=	once each day
W	=	once each week
M	=	once each month
Y	=	once each year
2M	=	every two months
Q	=	quarterly, (once in March, June, Sept. & December)
E	=	each occurrence
3/W	=	three times each week
Co./2h	=	continuous or every two hours

FOOTNOTES FOR TABLE 1

(1) During any time when bypassing occurs from any treatment process (primary, secondary, chlorination, dechlorination, etc.) in the treatment facilities, the self-monitoring program shall include the following sampling and analyses in addition to the Table 1 schedule:

a. When bypassing occurs from any primary or secondary treatment unit(s), composite samples on an hourly basis for the duration of the bypass event for BOD and TSS analyses, grab samples at least daily for Settleable Matter and Oil and Grease analyses; and continuous monitoring of flow.

b. When bypassing the chlorination process, grab samples at least daily for Total and Fecal Coliform analyses; and continuous monitoring of flow.

c. When bypassing the dechlorination process, grab samples hourly for chlorine residual; and continuous monitoring of flow.

(2) Sampling of effluent (E station) and receiving water (C station) is required only during the periods when effluent is being discharged to the Napa River.

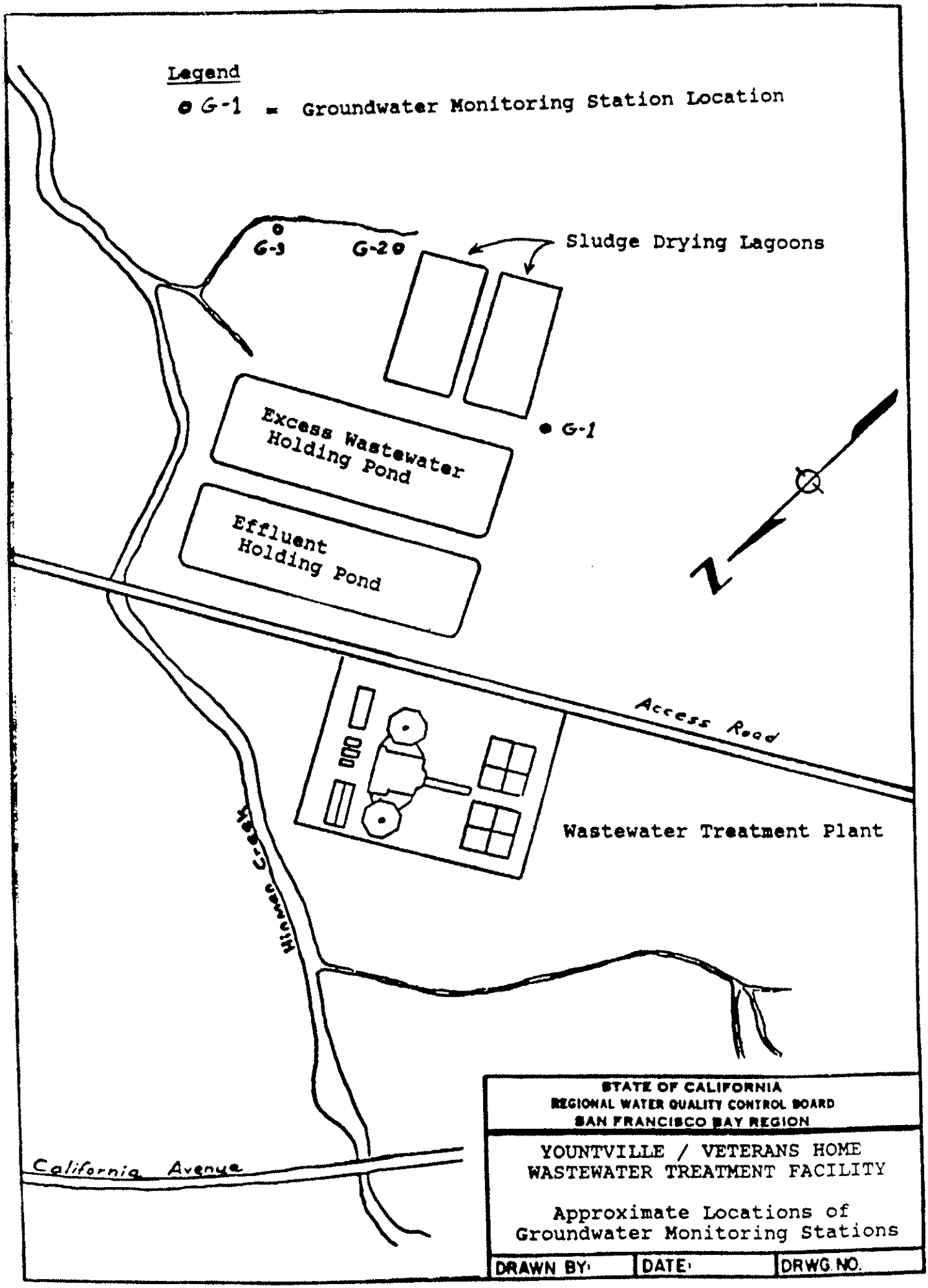
(3) Chlorine dosage shall be reported daily as total pounds or total kilograms during the previous 24 hours. Chlorine residue concentrations shall be reported for samples taken prior to and following dechlorination.

(4) Each Oil and Grease sample shall consist of three grab samples taken at equal intervals during the sampling date, with each grab sample being collected in a glass container and analyzed separately. Results shall be expressed as a weighted average of the three values, based upon the instantaneous flow rates occurring at the time of each sample collection.

(5) Prior to taking the groundwater samples, each well shall be pumped a minimum of 3 to 5 times of the well casing volume. In addition to the parameters indicated in Table 1, the following shall be reported (in feet, with respect to an identified, fixed surface reference point): (a) depth of each well, (b) depth of water, and (c) depth of sample collection point.

(6) Sampling, measurement and analysis requirements for reclaimed water and its uses are specified in the water reclamation requirements in Order No. 89-074, and amendments and/or revisions thereto.

(7) Location of the river flow gauging station and the method used in estimating river flow at the discharge point shall be identified in the monitoring report.


Legend
● G-1 = Groundwater Monitoring Station Location
G-3
G-20
Sludge Drying Lagoons
● G-1
Excess Wastewater Holding Pond
Effluent Holding Pond
N
Access Road
Wastewater Treatment Plant
Hiwaus Creek
California Avenue
STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
YOUNTVILLE / VETERANS HOME
WASTEWATER TREATMENT FACILITY
Approximate Locations of
Groundwater Monitoring Stations
DRAWN BY:
DATE:
DRWG NO.